GOVERNMENT OF INDIA
SCIENCE AND TECHNOLOGY
LOK SABHA

UNSTARRED QUESTION NO:2312
ANSWERED ON:30.07.2002
USE OF ASH RELEASED FROM FERTILIZER UNITS
JASKAUR MEENA

Will the Minister of SCIENCE AND TECHNOLOGY be pleased to state:

(a) whether the scientists have discovered that the ash released from the Thermal Power Plants can be utilized to make barren land fertile;

(b) if so, the details thereof; and

(c) the land in hectares which can be made fertile by this process alongwith the time period for which the said land would remain fertile?

Answer

THE MINISTER OF SCIENCE & TECHNOLOGY (SHRI BACHI SINGH RAWAT)

(a) to (c): A statement is attached.

STATEMENT REFERRED TO IN REPLY TO PARTS (a) TO (c) OF THE LOK SABHA UNSTARRED QUESTION NO. 2312 FOR ANSWER ON 30.07.2002 REGARDING USE OF ASH RELEASED FROM FERTILIZER UNITS.

A few of select Technology Demonstration Projects undertaken / commissioned by Fly Ash Mission, Technology Information, Forecasting & Assessment Council (TIFAC), Department of Science & Technology (DST) have shown promising results for use of fly ash to reclaim wastelands. The application of fly ash provides micro-nutrients like iron, zinc, copper, molybdenum, boron etc. along with macro-nutrients like calcium, potassium and phosphorus etc., fly ash also improves the physical condition of soil and improves water holding capacity as well as aeration that facilitate vegetation.

Use of fly ash in usar soils reduces requirement of gypsum by 50% to 75%. Alkali saline eroded soils and the abandoned ash pond can also be reclaimed for agriculture / forestry / floriculture with application of fly ash and mycorrhia.

The select Technology Demonstration Projects undertaken / commissioned by Fly Ash Mission, Technology Information, Forecasting & Assessment Council (TIFAC), Department of Science & Technology (DST) for wastelands reclamation are :

S. No.	Soils/land type	Crops/trees species	Location
1.	Usar	Rice-Wheat	Dallapur, U.P.
2.	Usar	Rice-Wheat	Tardih, U.P.
3.	Usar	Rice-Wheat	Yakubpur, U.P.
4.	Usar	Rice-Wheat	Purisudi, U.P.
5.	Usar	Rice-Wheat	Parasinpur, U.P.
6.	Usar	Rice-Wheat	Mobarukpur, U.P.
7	Alkali Saline Eroded Salt Affected	EucalyptusJojoba,Zizyphus	Chaksu, Rajasthan
8.	Ash Pond	Floriculture:Rajnigandha, Tagetus, Carnation, Palmarosa and Sunflower	Badarpur, New Delhi,

9. Semi Arid Eucalyptus, Zizypus, Jojoba Jaipur
10. Ash Pond Forestry: Melia azadirach,
    Delbegia sisso, Eucalyptus
    sp., populus deltoides Badarpur, New Delhi
11. Low Fertile Soil Ceiba pentandra, Melia
    azadirach, Cassia siamea,
    Erythirina indica, Putranjiva,
    Pongamia glabra, Thevetia
    elifera   IIT-Delhi,

As stated earlier, ash facilitates reclamation of wastelands by providing macro / micro-nutrients and improving the physical health of soil, however, it needs to be supplemented with proper irrigation and other inputs.

The barren (wasteland) which can be made fertile (vegetative) by use of fly ash could be around 60-80 million hectare; the assessment of quantum of such lands has not been made specifically. The effect of fly ash is expected to remain at least for 6-7 years or more. The sustained effect has been seen at some of the project sites for more than 5 years, it is expected to last longer.